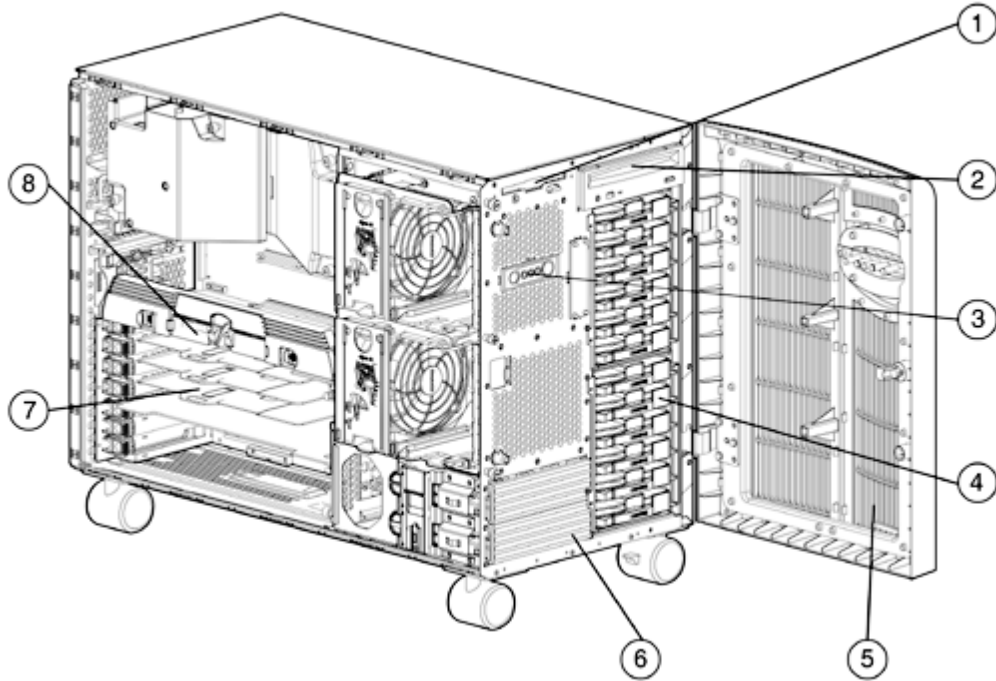
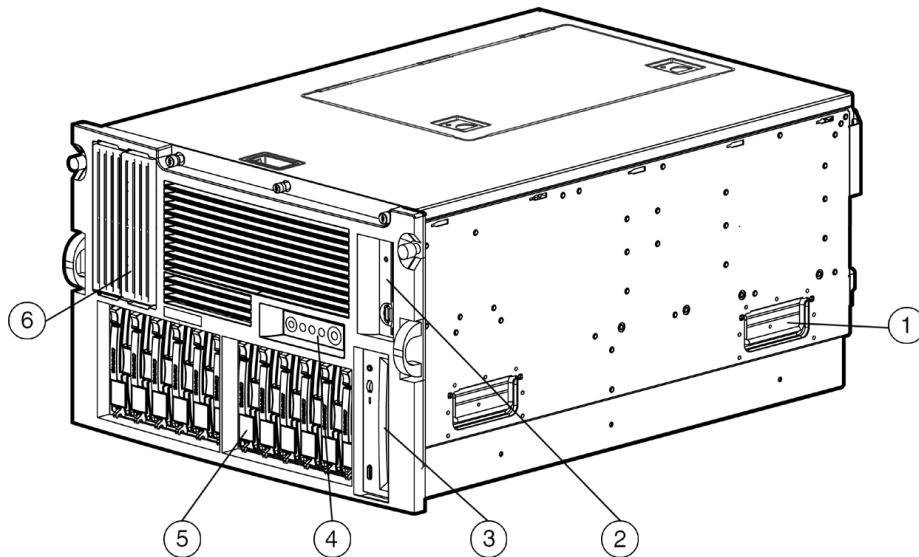


Overview



- 1. 1.44-MB Diskette Drive
- 2. High Speed IDE CD-ROM
- 3. Diagnostic Lighting
- 4. Wide Ultra3/Ultra320 Hot Plug Drive Bays (12 x 1" Standard)
- 5. Front Bezel
- 6. 5.25-inch Removable Media Bays
- 7. Seven PCI-X slots
- 8. Memory Board



- 1. Rack handles
- 2. 1.44-MB Diskette Drive
- 3. High Speed IDE CD-ROM
- 4. Diagnostic Lighting
- 5. Wide Ultra3/Ultra320 Hot Plug Drive Bays (12 x 1" Standard)
- 6. 5.25-inch Removable Media Bays

Overview

What's New

- Intel® Xeon Processors MP 3.0 GHz/4MB, 2.7 GHz/2MB or 2.2 GHz/2MB
- 1 GB memory standard on all new models

At A Glance

- Best-in-class 4-way server with exceptional performance, maximum reliability and unmatched expansion/flexibility
- Intel Xeon Processor
- ServerWorks Grand Champion-HE chipset
- 2x1 interleaved memory, 200MHz DDR SDRAM Memory
- 1024 MB PC1600 Advanced ECC SDRAM Memory standard, expandable to 32 GB
- Seven, full length 64-bit/100 MHz PCI-X slots, 4 Hot Pluggable
- Integrated NC3163 Fast Ethernet NIC PCI 10/100 WOL (Wake On LAN) and PXE support
- Integrated Dual Channel Wide Ultra3 compatible SCSI Adapter
- Wide Ultra3 compatible SCSI Drive Cage standard (two 6 x 1" cages)
- Internal mass storage capacity up to 4.20 TB (12 x 300 GB + 2 x 300 GB 1" hot plug drives) with optional ML5xx Internal Two Bay Hot Plug SCSI Drive Cage (with Fan)
- Support for DAT hot plug tape drives
- Integrated Remote Console and Automatic Server Recovery-2 (ASR-2)
- Two 600-Watt Hot Pluggable Power Supplies (additional third for redundancy)
- Optional Redundant Hot Plug Fans
- Industry-standard PCI Hot Plug with Push Button Functionality
- Advanced Memory Protection including Online Spare Memory, Hot-plug Mirrored memory and hot-add capability
- Protected by HP Services and a worldwide network of resellers and service providers. Three-year Next Business Day, on-site limited global warranty. Certain restrictions and exclusions apply. Pre-Failure Notification on processors, memory, and SCSI hard drives.

Standard Features

Processor One of the following depending on Model:	Intel Xeon Processor MP at 3.0 GHz\4MB Intel Xeon Processor MP at 2.7 GHz\2MB Intel Xeon Processor MP at 2.2 GHz\2MB Intel Xeon Processor MP at 2.8 GHz\2MB Intel Xeon Processor MP at 2.5 GHz\1MB Intel Xeon Processor MP at 2.0 GHz\1MB NOTE: Rack-optimized models ship standard with two processors while tower models ship with one processor as standard.
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Cache Memory One of the following depending on Model:	4 MB Integrated Level 3 cache (per processor) NOTE: Available with 3.0 GHz models. 2 MB Integrated Level 3 cache (per processor) NOTE: 2.7 GHz, 2.2 GHz, 2.8 GHz Models only. 1 MB Integrated Level 3 cache (per processor) NOTE: 2.5 GHz, 2.0 GHz Models only.
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Upgradability	Upgradable to quad processing
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Chipset	ServerWorks Grand Champion-HE chipset NOTE: For more information regarding ServerWorks, please see the following URL: http://www.serverworks.com/products/overview.html .
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Memory Protection	Advanced Memory Protection NOTE: For more information regarding Advanced Memory Protection, please see the following URL: http://h18000.www1.hp.com/products/servers/technology/memoryprotection.html .
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Memory	Type	PC1600-MHz Registered ECC SDRAM DIMM
	Standard	512 MB (2 x 256 MB)
	Standard	1 GB (1 x 512 MB)
		(on 3.0 GHz/2.7GHz/2.2GHz models and 2P Models only)
	Maximum	32 GB

Network Controller	Integrated NC3163 Fast Ethernet NIC PCI 10/100 with full WOL (Wake On LAN) and PXE support
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Standard Features

Expansion Slot	I/O (7 Total)	Bus Number	PCI Voltage
1,2	64-bit, 100-MHz PCI Hot Plug NOTE: The Smart Array 6402/6404 should not be used in slot 2.	1	3.3V
3,4	64-bit, 100-MHz PCI Hot Plug	5	3.3V
5,6	64-bit, 100-MHz PCI Non-Hot Plug	9	3.3V
7	64-bit, 100-MHz PCI Non-Hot Plug NOTE: Preferred RILOE slot.	13	3.3V

NOTE: For more information regarding PCI-X, please see the following URL: <http://www.hp.com/servers/pci-x>.

NOTE: All slots can accept universal keyed PCI cards.

Storage Controllers Integrated Dual Channel Wide Ultra3 SCSI Adapter

Storage

Diskette Drives	1.44 MB Diskette Drive
Optical Drive	48x IDE (ATAPI) CD-ROM Drive
Hard Drives	None

Maximum Internal Storage Type Hot Plug SCSI 4.20 TB 12 x 300 GB + 2 x 300 GB 1" Ultra320 with optional ML5xx Two Bay Hot Plug SCSI Drive Cage

Interfaces

Parallel	1
Serial	2
Pointing Device (Mouse)	1
Graphics	1
Keyboard	1
Rear USB Ports	2

NOTE: Please see the following URL for additional information regarding USB support:
<http://h18004.www1.hp.com/products/servers/platforms/usb-support.html>

Network RJ-45	1
External SCSI	1

Graphics Integrated ATI RAGE IIC Video Controller with 8MB Video Memory

Form Factor Tower or Rack (7U)

Product Demo To view the Product Demo, please see the following URL, then click on "PRODUCT TOUR":
<http://h18004.www1.hp.com/products/servers/proliantml570/index.html>.

Standard Features

ProLiant Essentials Foundation Pack Software

HP Systems Insight Manager

HP's new HP Systems Insight Manager (HP SIM) helps maximize system uptime and performance and reduce system maintenance costs by providing proactive notification of problems before those problems result in unplanned downtime or reduced productivity. HP SIM are both easy to set up work with the Insight Management Agents, integrated Lights-Out and Remote Insight Lights-Out Edition, and Version Control Agents to deliver robust fault, configuration, and asset management as well as remote administration. With HP SIM customers will also be able to take advantage of role-based security; the ability to manage ProLiant, Integrity, and HP 9000 systems; and plug-ins for storage, client, printer, and power management as well as server rapid deployment, performance management, and workload management. For more details on HP HP SIM visit <http://www.hp.com/go/hpsim>.

SmartStart

SmartStart is a tool that simplifies server setup, providing a rapid way to deploy reliable and consistent server configurations. For more information, please visit the SmartStart Web site at <http://www.hp.com/servers/smartstart>. SmartStart version supported (minimum): SmartStart 6.40.

Management Agents

The Management Agents form the foundation for HP's Intelligent Manageability strategy. They provide direct, browser-based access to in-depth instrumentation built into HP servers, workstations, desktops, and portables, and send alerts to Systems Insight Manager and other enterprise management applications in case of subsystem or environmental failures. For additional information about the Management Agents and other management products from HP, please visit the management Web site at <http://www.hp.com/servers/manage>.

Subscriber's Choice

Subscriber's Choice Driver and Support Alerts/Notifications is a web-based email subscription service that provides automatic delivery of software and driver change notifications for ProLiant products. Sign up at <http://www.hp.com/go/subscriberschoice> and customize your profile to receive various new alerts as they become available, on a weekly or monthly basis.

ROMPaa, support software, and configuration utilities

The latest software, drivers, and firmware fully optimized and tested for your ProLiant server and options available in SmartStart or downloadable from Software and Drivers download pages, linked from the SmartStart website at <http://www.hp.com/servers/smartstart>.

Survey Utility and diagnostics utilities

The most advanced configuration analysis, reporting and troubleshooting utilities used by HP and at your fingertips, available in SmartStart.

Standard Features

Optional ProLiant Essentials Value Packs

Optional software offerings that selectively extend the functionality of an Adaptive Infrastructure to address specific business problems and needs:

- Rapid Deployment Pack - an automated solution for multi-server deployment and provisioning, enabling companies to quickly and easily adapt to changing business demands.
- Workload Management Pack - provides easier management of complex environments, improving overall server utilization and enabling Windows® 2000 customers for the first time to confidently deploy multiple applications on a single multiprocessor ProLiant Server.
- Integrated Lights-Out Advanced Pack - upgrades the Integrated Lights-Out processor to full virtual presence and control with graphical console and virtual media.
- Performance Management Pack - a performance management solution that identifies and explains hardware performance bottlenecks on ProLiant servers and attached options enabling users to better utilize their valuable resources.
- Intelligent Networking Pack - detects and analyzes network bottlenecks or broken network linkages and steers traffic to the optimum route based on network conditions, plus it provides an extra layer of protection. The virus throttle feature of the solution slows the propagation of fast spreading virus
- Vulnerability and Patch Management Pack - identifies and remediates software security vulnerabilities due to missing patches as well operating system configurations that can be exploited by viruses, worms, and other blended threats
- Virtual Machine Management Pack - provides central management and control of virtual machines from Microsoft and VMware. Integrated approach provides the ability to manage both physical and virtual resources from a single management console.

NOTE: Flexible and volume quantity license kits are available for ProLiant Essentials Value Packs. Refer to <http://www.hp.com/servers/proliantessentials> or the various ProLiant Essentials Value Pack product QuickSpecs for more information.

NOTE: For more information regarding ProLiant Essentials Software, please see the following URL: <http://www.hp.com/servers/proliantessentials>

Industry Standard Compliance

ACPI 2.0 Compliant
PCI 2.2 Compliant
PXE Support
WOL Support
Physical Address Extension (PAE) Support
Microsoft® Logo certifications

Standard Features

Availability

Advanced Memory Protection Technology – delivers unsurpassed memory protection and server availability:

- Advanced ECC Memory

ECC protection provides the ability to detect and correct single bit memory errors while Advanced ECC extends this coverage to include protection against multiple simultaneous errors on a DIMM. Advanced ECC detects and corrects 4bit memory errors that occur within a single DRAM chip on a DIMM. Advanced ECC algorithms work in combination with industry standard ECC DIMMS.

Advanced Memory Protection Configurations

- Online Spare Memory

Offers a higher level of memory protection than Advanced ECC alone. The system is configured with a spare bank of memory. If the number of single-bit correctable errors on a bank exceeds the pre-defined error threshold, the failing bank will fail over to the Online Spare bank without intervention or server interruption. The failed memory can then be replaced at the user's convenience during a scheduled maintenance window.

- Single-Board Mirrored Memory

Single-board mirrored memory provides a higher level of availability than Advanced ECC and Online Spare Memory because it protects against multi-bit errors. Single-board Mirrored Memory uses a single memory board that is configured with a mirrored/redundant set of memory. The system writes to both sets of memory, but reads from one. If a memory bank has a multi-bit error or full DIMM failure, the system simply reads from the mirrored bank instead. This process occurs without intervention or server interruption, and the failed DIMM can be replaced during a regularly scheduled shutdown.

- Hot Plug Mirrored Memory

Hot Plug Mirrored Memory is a fault-tolerant memory feature that provides a higher level of availability than Advanced ECC, Online Spare Memory, or Single-Board Mirrored Memory because it protects against multi-bit errors and does not require any server downtime to replace failed DIMMs. Hot Plug Mirrored Memory requires that two memory boards be installed, one an exact mirror of the other, which run in parallel and provide protection against multi-bit memory errors. When configured for Hot Plug Mirrored Memory, the system writes to both memory boards, but reads from one. If a read error occurs, the system fails over to the redundant memory board. At that point the memory board containing the failed DIMMs can be hot replaced. Once the failed DIMMs are replaced and the memory board re-installed into the server, the system goes back to full mirrored status. All this occurs without bringing the server down.

NOTE: Hot Plug Mirrored Memory and Dual-Board Online Spare Memory require the use of two memory cards. All HP ProLiant ML570 G2 servers ship standard with a single memory board. The second memory board is optional (P/N 236844-B21).

NOTE: All Advanced Memory Protection modes are user configurable through the ROM-Based Setup Utility (RBSU) and viewable through Systems Insight Manager and the Integrated Management Log (IML).

- PCI-X Hot Plug Technology (Four 64bit/100MHz PCI-X hot plug slots available)
- Two 600W Hot Plug Power Supply standard
- Six Hot Plug System Fans standard

Standard Features

Intelligent Manageability	<p>HP Systems Insight Manager Remote Lights-Out Edition II (optional) Automatic Server Recovery-2 (ASR-2) Hardware Remote Console Full Remote Server Reboot Capability Reset and Failure Sequence Replay Host Hardware Independent Operating System Independent Server Health Logging Revision History Table Automatic Revision Tracking Drive Parameter Tracking (with Smart Array Controller) Dynamic Sector Repairing (with Smart Array Controller) Hot Spare Boot</p> <p>NOTE: Upon the event of a failed processor or VRM in a multi-processing environment, the system will automatically reboot and use the remaining good processor(s).</p> <p>Pre-Failure Warranty (covers processors, SCSI hard drives and memory)</p>
Security	<p>Power-on password Hot plug keyboard password Diskette drive control Diskette boot control QuickLock, Network Server Mode Parallel and serial interface control Administrator's password Disk configuration lock Locking access door on hood Locking tower bezel door Tool required for removing shipping screw from hood</p>
Server Power Cords	<p>Two Lowline power cords ship standard (Rack models ship with IEC cords)</p>
UPS and PDU Power Cord Matrix	<p>Please see the UPS and PDU cable matrix that lists cable descriptions, requirements, and specifications for UPS and PDU units: ftp://ftp.compaq.com/pub/products/servers/ProLiantstorage/power-protection/powercordmatrix.pdf.</p>
Power Supply	<p>Two 600W Hot Pluggable Power Supplies (three supported on rack models) third power supply is needed for redundancy.</p> <p>NOTE: Two 600-Watt Hot Plug Power Supply ships standard with 1P tower Models (optional Redundant Hot Plug Power Supply Option Kit).</p> <p>Three 600-Watt Hot Plug Power Supplies ship standard with 2P Rack Models.</p> <p>NOTE: Under certain configurations, server can operate in 1+ 1 redundancy model using two power supplies. Configurations include servers with two processors and up to 12 drives or up to four processors and 6 drives installed. This assumes all PCI-X slots are fully populated. This mode will need to be set-up through RBSU.</p>

Standard Features

System Fans Six fans ship standard with two additional option fans for redundancy
NOTE: Rack Models ship standard with redundant fans.

Required Cabling For required cabling information, refer to the Web site at <http://h18000.www1.hp.com/products/servers/ProLiantML570/>.

OS Support Microsoft Windows Server 2003 (Standard and Enterprise Edition)
Microsoft Windows NT® Enterprise Edition
Microsoft Windows 2000 Servers
Microsoft Windows 2000 Advanced Servers
Microsoft Windows NT
Novell NetWare
SCO OpenServer, UnixWare
Caldera OpenUnix®
IBM OS/2 Warp Server for e-business
Red Hat Linux
Red Hat Enterprise Linux
SuSE Linux Enterprise Server
UnitedLinux
Sun Solaris Intel Platform Edition
VMware Virtualization Software

NOTE: For a more complete and up-to-date listing of supported OSs and versions, please visit our OS Support Matrix at: <http://www.hp.com/go/supportos>.

NOTE: For a listing of the latest drivers available for the HP ProLiant ML570 G2, please see: <http://h18023.www1.hp.com/support/files/server/us/index.html>.

NOTE: For a more complete and up-to-date information on Linux support, please visit HP Linux website at <http://h18000.www1.hp.com/products/servers/linux/hpLinuxcert.html>.

NOTE: For more complete and up-to-date information on how to buy server operating systems from HP please visit the OS product site at: <http://h18004.www1.hp.com/products/servers/software/OEM.html>

NOTE: For more information on HP's Certified and Supported ProLiant Servers, please visit the VMware Server Support Matrix at: <http://h18004.www1.hp.com/products/servers/software/vmware/hpvmwarecert.html>.

Rack Airflow Requirements **Rack 10000 series Cabinets**
The increasing power of new high-performance processor technology requires increased cooling efficiency for rack-mounted servers. The 10000 Series Racks provide enhanced airflow for maximum cooling, allowing these racks to be fully loaded with servers using the latest processors.

CAUTION: If a third-party rack is used, observe the following additional requirements to ensure adequate airflow and to prevent damage to the equipment:

- **Front and rear doors:** If your 42U server rack includes closing front and rear doors, you must allow 830 square inches (5,350 sq cm) of hole evenly distributed from top to bottom to permit adequate airflow (equivalent to the required 64 percent open area for ventilation).
- **Side:** The clearance between the installed rack component and the side panels of the rack must be a minimum of 2.75 inches (7 cm).

CAUTION: Always use blanking panels to fill all remaining empty front panel U-spaces in the rack. This arrangement ensures proper airflow. Using a rack without blanking panels results in improper cooling that can lead to thermal damage.

Standard Features

NOTE: For additional information, refer to the Setup and Installation Guide or the Documentation CD provided with the server, or to the server documentation located in the Support section at the following URL: <http://h18000.www1.hp.com/products/servers/ProLiantml570/index.html>.

Rack Kit HP ProLiant ML570 G2 rack models provide tool-free support for square hole racks (including Compaq/HP 7000, 9000, 10000 and H9 series) with an adjustment range from 28" – 29" depth.

Factory Express Portfolio for Servers and Storage HP Factory Express offers configuration, customization, integration and deployment services for HP servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed.

Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. HP products supported through Factory Express include a wide array of servers and storage: HP Integrity, HP ProLiant, HP ProLiant Server Blades, HP BladeSystem, HP 9000 servers as well as the MSA1000, VA7xxx, EVA, XP, rackable tape libraries and configurable network switches.

For more information on Factory Express services for your specific server model please contact your sales representative or go to <http://www.hp.com/go/factory-express>.

Custom Builder Please see the Enterprise Configurator for configuration assistance at: <http://www.hp.com/products/configurator>.

Service and Support This product is covered by a global limited warranty and supported by HP Services and a worldwide network of resellers and service providers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Additional support may be covered under the warranty or available for an additional fee. Enhancements to warranty services are available through HP Care Pack services or customized service agreements.

NOTE: Limited warranty includes 3 year parts, 3 year labor, 3-year on-site support.

NOTE: SATA drives have a 1 year warranty.

Care Pack services provide a range of life cycle support options that let you choose the service levels that meet your business requirements, from basic to mission-critical.

A full range of HP Care Pack hardware and software services are available including:

- Installation and start up
- Education courses
- Extended onsite hardware coverage hours from same business day 13 hours, 5 day to 24 hours, 7 days call window with options including 4-hour response or 6-hour Call To Repair
- Comprehensive range of software technical support for Microsoft, Linux, ProLiant Essentials and VMWare-based IT solutions helping to deliver high level of application availability. Response times range from 30 mins for critical problems to 2 hours.
- System Management, Performance Services and Mission Critical Support Solution

HP Care Pack services include coverage for the HP branded hardware options qualified for the server, purchased at the same time or afterward, internal to the enclosure, as well as 22" and smaller external monitors and tower UPS options up to 3kVA; these items will be covered at the same service level and

Standard Features

for the same coverage period as the server. Coverage of UPS Battery is not included, standard warranty terms & conditions apply. For servers or storage systems installed within a rack, service also covers all HP qualified rack options installed within the same rack.

NOTE: For more information on HP Care Pack services, contact any of our worldwide sales offices or resellers or visit our worldwide Web site on the internet at: <http://www.hp.com/hps/carepack>

NOTE: For more complete information on HP Services offerings, customers and resellers, please visit us at: <http://www.hp.com/hps>

NOTE: Additional information regarding worldwide limited warranty and technical support is available at: <http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>

Models

ML570R02 X3.0-4MB, 1024MB (2P) 345320-xx1	Processor	(2) Intel Xeon Processors MP 3.0 GHz standard (up to four supported)
	Cache Memory	4 MB Integrated Level 3 Cache
	Memory	1024 MB PC1600 registered ECC SDRAM (Standard) to 32 GB (Maximum) (2x1 interleaved memory and Advanced Memory Protection Technology) NOTE: Second memory board would be required to configure up to 32 GB or maximum memory using 2 GB DIMMs.
	Network Controller	Integrated NC3163 Fast Ethernet NIC PCI 10/100 with full WOL (Wake On LAN) and PXE support
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter (Ultra320 compatible)
	Hard Drive	None ship standard
	Internal Storage	4.20 TB maximum (with optional hard drives and drive cage)
	Power Supplies	Three 600W Power Supplies (third power supply for redundancy)
	Optical Drive	48x IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
	Form Factor	Rack (7U)

ML570R02 X2.7-2MB, 1024MB (2P) 345316-xx1	Processor	(2) Intel Xeon Processors MP 2.7 GHz standard (up to four supported)
	Cache Memory	2 MB Integrated Level 3 Cache
	Memory	1024 MB PC1600 registered ECC SDRAM (Standard) to 32 GB (Maximum) (2x1 interleaved memory and Advanced Memory Protection Technology) NOTE: Second memory board would be required to configure up to 32 GB or maximum memory using 2 GB DIMMs.
	Network Controller	Integrated NC3163 Fast Ethernet NIC PCI 10/100 with full WOL (Wake On LAN) and PXE support
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter (Ultra320 compatible)
	Hard Drive	None ship standard
	Internal Storage	4.20 TB maximum (with optional hard drives and drive cage)
	Power Supplies	Three 600W Power Supplies (third power supply for redundancy)
	Optical Drive	48x IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
	Form Factor	Rack (7U)

Models

ML570R02 X2.2-2MB, 1024MB (2P) 345318-xx1	Processor	(2) Intel Xeon Processors MP 2.2 GHz standard (up to four supported)
	Cache Memory	2 MB Integrated Level 3 Cache
	Memory	1024 MB PC1600 registered ECC SDRAM (Standard) to 32 GB (Maximum) (2x1 interleaved memory and Advanced Memory Protection Technology) NOTE: Second memory board would be required to configure up to 32 GB or maximum memory using 2 GB DIMMs.
	Network Controller	Integrated NC3163 Fast Ethernet NIC PCI 10/100 with full WOL (Wake On LAN) and PXE support
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter (Ultra320 compatible)
	Hard Drive	None ship standard
	Internal Storage	4.20 TB maximum (with optional hard drives and drive cage)
	Power Supplies	Three 600W Power Supplies (third power supply for redundancy)
	Optical Drive	48x IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
	Form Factor	Rack (7U)

ML570R02 X2.0-1MB, 1024MB (2P) 325247-xx1	Processor	(2) Intel Xeon Processors MP 2.0 GHz standard (up to four supported)
	Cache Memory	1 MB Integrated Level 3 Cache
	Memory	1024 MB PC1600 registered ECC SDRAM (Standard) to 32 GB (Maximum) (2x1 interleaved memory and Advanced Memory Protection Technology) NOTE: Second memory board would be required to configure up to 32 GB or maximum memory using 2 GB DIMMs.
	Network Controller	Integrated NC3163 Fast Ethernet NIC PCI 10/100 with full WOL (Wake On LAN) and PXE support
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter (Ultra320 compatible)
	Hard Drive	None ship standard
	Internal Storage	4.20 TB maximum (with optional hard drives and drive cage)
	Power Supplies	Three 600W Power Supplies (third power supply for redundancy)
	Optical Drive	48x IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
	Form Factor	Rack (7U)

Models

ML570T02 X3.0-4MB, 1024MB (1P) 345319-xx1	Processor	(1) Intel Xeon Processors MP 3.0 GHz standard (up to four supported)
	Cache Memory	4 MB Integrated Level 3 Cache
	Memory	1024 MB PC1600 registered ECC SDRAM (Standard) to 32 GB (Maximum) (2x1 interleaved memory and Advanced Memory Protection Technology) NOTE: Second memory board would be required to configure up to 32 GB or maximum memory using 2 GB DIMMs.
	Network Controller	Integrated NC3163 Fast Ethernet NIC PCI 10/100 with full WOL (Wake On LAN) and PXE support
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter (Ultra320 compatible)
	Hard Drive	None ship standard
	Internal Storage	4.20 TB maximum (with optional hard drives and drive cage)
	Power Supplies	Two standard with optional third power supply for redundancy
	Optical Drive	48x IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
	Form Factor	Tower

ML570T02 X2.7-2MB, 1024MB (1P) 345315-xx1	Processor	(1) Intel Xeon Processors MP 2.7 GHz standard (up to four supported)
	Cache Memory	2 MB Integrated Level 3 Cache
	Memory	1024 MB PC1600 registered ECC SDRAM (Standard) to 32 GB (Maximum) (2x1 interleaved memory and Advanced Memory Protection Technology) NOTE: Second memory board would be required to configure up to 32 GB or maximum memory using 2 GB DIMMs.
	Network Controller	Integrated NC3163 Fast Ethernet NIC PCI 10/100 with full WOL (Wake On LAN) and PXE support
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter (Ultra320 compatible)
	Hard Drive	None ship standard
	Internal Storage	4.20 TB maximum (with optional hard drives and drive cage)
	Power Supplies	Two standard with optional third power supply for redundancy
	Optical Drive	48x IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
	Form Factor	Tower

Models

ML570T02 X2.2-2MB, 1024MB (1P) 345317-xx1	Processor	(1) Intel Xeon Processors MP 2.2 GHz standard (up to four supported)
	Cache Memory	2 MB Integrated Level 3 Cache
	Memory	1024 MB PC1600 registered ECC SDRAM (Standard) to 32 GB (Maximum) (2x1 interleaved memory and Advanced Memory Protection Technology) NOTE: Second memory board would be required to configure up to 32 GB or maximum memory using 2 GB DIMMs.
	Network Controller	Integrated NC3163 Fast Ethernet NIC PCI 10/100 with full WOL (Wake On LAN) and PXE support
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter (Ultra320 compatible)
	Hard Drive	None ship standard
	Internal Storage	4.20 TB maximum (with optional hard drives and drive cage)
	Power Supplies	Two standard with optional third power supply for redundancy
	Optical Drive	48x IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
Form Factor	Tower	

ML570T02 X2.0-1MB, 512MB (1P) 325246-xx1	Processor	(1) Intel Xeon Processors MP 2.0 GHz standard (up to four supported)
	Cache Memory	1 MB Integrated Level 3 Cache
	Memory	512 MB PC1600 registered ECC SDRAM (Standard) to 32 GB (Maximum) (2x1 interleaved memory and Advanced Memory Protection Technology) NOTE: Second memory board would be required to configure up to 32 GB or maximum memory using 2 GB DIMMs.
	Network Controller	Integrated NC3163 Fast Ethernet NIC PCI 10/100 with full WOL (Wake On LAN) and PXE support
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter (Ultra320 compatible)
	Hard Drive	None ship standard
	Internal Storage	4.20 TB maximum (with optional hard drives and drive cage)
	Power Supplies	Two standard with optional third Power supplies for redundancy
	Optical Drive	48x IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
Form Factor	Tower	

Country Code Key	XX=00	U.S. English
	XX=02	Int'l
	XX=03	UK
	XX=20	Brazil (Tower Models only)
	XX=37	APD
	XX=29	Japan
	XX=42	Europe
	XX=AA	PRC

Options

Processor	<p>Intel Xeon MP X3.0 GHz-4MB Processor Option Kit 345323-B21 NOTE: This processor option kit (PN 345323-B21) supports the HP ProLiant ML570 G2 and the HP ProLiant DL580 G2.</p> <p>Intel Xeon MP X2.70 GHz-2MB Processor Option Kit 345322-B21 NOTE: This processor option kit (PN 345322-B21) supports the HP ProLiant ML570 G2 and the HP ProLiant DL580 G2.</p> <p>Intel Xeon MP X2.20 GHz-2MB Processor Option Kit 345321-B21 NOTE: This processor option kit (PN 345321-B21) supports the HP ProLiant ML570 G2 and the HP ProLiant DL580 G2.</p> <p>Intel Xeon MP X2.80 GHz-2MB Processor Option Kit 325254-B21 NOTE: This processor option kit (PN 325254-B21) supports the HP ProLiant ML570 G2 and the HP ProLiant DL580 G2.</p> <p>Intel Xeon MP X2.50 GHz-1MB Processor Option Kit 325253-B21 NOTE: This processor option kit (PN 325253-B21) supports the HP ProLiant ML570 G2 and the HP ProLiant DL580 G2.</p> <p>Intel Xeon MP X2.0 GHz-1MB Processor Option Kit 325252-B21 NOTE: This processor option kit (PN 325252-B21) supports the HP ProLiant ML570 G2 and the HP ProLiant DL580 G2.</p> <p>Intel Xeon MP X2.0 GHz-2MB Processor Option Kit 307276-B21 NOTE: This processor option kit (PN 307276-B21) supports the HP ProLiant ML570 G2 and the HP ProLiant DL580 G2. NOTE: Processor mixing of different frequencies and cache sizes is not supported.</p>
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ProLiant Essentials Value Pack Software	<p>ProLiant Essentials Integrated Lights-Out Advanced Pack</p> <p>ProLiant Essentials Integrated Lights-Out Advanced Pack, 1 server 263825-B21 Featuring: sophisticated virtual administration features for ultimate control of servers in the data centers and remote sites. NOTE: For additional ProLiant Integrated Light-Out Advanced Pack License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11052_div/11052_div.HTML</p> <p>ProLiant Essentials Intelligent Networking Pack</p> <p>ProLiant Essentials Intelligent Networking Pack - Windows Edition, Single Server License 372906-B21 NOTE: For use with a single server. Contains one license with a unique license activation key and documentation. NOTE: For additional ProLiant Intelligent Networking Pack - Windows License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12062_div/12062_div.HTML</p> <p>ProLiant Essentials Intelligent Networking Pack - Linux Edition, Single Server License 397004-B21 NOTE: For additional ProLiant Intelligent Networking Pack - Linux License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12327_div/12327_div.HTML</p> <p>ProLiant Essentials Performance Management Pack</p> <p>ProLiant Essentials Performance Management Pack, Single-Server License 306696-B21 NOTE: For use with a single server. Contains one license with a unique license activation key, HP Management CD and documentation. NOTE: The most recent version of the software can always be downloaded at http://www.hp.com/products/pmp.</p>
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Options

NOTE: For additional ProLiant Performance Management Pack License Kits please see the QuickSpecs at:

http://h18000.www1.hp.com/products/quickspecs/11925_div/11925_div.HTML

ProLiant Essentials Rapid Deployment Pack Windows Edition and Linux Edition Release

Rapid Deployment Pack, Single-Server License 267196-B21

NOTE: This license allows 1 server to be deployed and managed via RDP.

Rapid Deployment Pack, Single-Server License (Japan) 267196-291

NOTE: This license allows 1 server to be deployed and managed via RDP.

NOTE: For additional ProLiant Essentials Rapid Deployment Pack License Kits please see the QuickSpecs at:

http://h18000.www1.hp.com/products/quickspecs/11053_div/11053_div.HTML

http://h18000.www1.hp.com/products/quickspecs/11713_div/11713_div.HTML

ProLiant Essentials Workload Management Pack

ProLiant Essentials Workload Management Pack, Single Server License 303284-B21

NOTE: For additional ProLiant Workload Management Pack License Kits please see the QuickSpecs at:

http://h18000.www1.hp.com/products/quickspecs/11452_div/11452_div.HTML

ProLiant Essentials Virtualization Management Software

ProLiant Essentials Virtual Machine Management Pack, Single-Server License 372214-B21

NOTE: For use with a single server. Contains one license with a unique license activation key and documentation.

ProLiant Essentials Server Migration Pack, Single-Migration License 375345-B21

NOTE: Contains one license, enabling 1 server migration, with a unique license activation key and documentation.

NOTE: This license allows 1 server to be migrated from a physical server to a virtual machine. Or this license can be used to migrate a virtual machine from one virtualization layer i.e. VMware GSX to a different virtualization layer such as VMware ESX or Microsoft Virtual Server 2005.

NOTE: For additional ProLiant Essentials Virtualization Management Software License Kits please see the QuickSpecs at:

http://h18000.www1.hp.com/products/quickspecs/12328_div/12328_div.HTML

ProLiant Essentials Vulnerability and Patch Management Pack

ProLiant Essentials Vulnerability and Patch Management Pack, Single-Server License 371645-B21

NOTE: For use with a single server. Contains one license with a unique license activation key and documentation.

NOTE: For additional ProLiant Vulnerability and Patch Management Pack License Kits, please see the QuickSpecs at:

http://h18000.www1.hp.com/products/quickspecs/12111_div/12111_div.HTML

NOTE: Flexible and volume quantity license kits are available for ProLiant Essentials Value Packs. Refer to <http://www.hp.com/servers/proliantessentials> or the various ProLiant Essentials Value Pack product QuickSpecs for more information.

NOTE: For more information regarding ProLiant Essentials Software, please see the following URL: <http://www.hp.com/servers/proliantessentials>.

Software	HP digital asset protection	302316-001
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Options

Memory (DIMMs)	4096 MB PC1600 Registered ECC SDRAM Memory Kit (2 x 2048 MB)	187421-B21
	2048 MB PC1600 Registered ECC SDRAM Memory Kit (2 x 1024 MB)	187420-B21
	1024 MB PC1600 Registered ECC SDRAM Memory Kit (2 x 512 MB)	187419-B21
	512 MB PC1600 Registered ECC SDRAM Memory Kit (2 x 256 MB)	187418-B21
	Hot-plug Memory Expansion Board	236844-B21
NOTE: Second memory board would be required to configure 16 GB of memory using 2GB DIMMs.		
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Optical Drives	16X DVD-ROM Drive Option Kit (Carbon)	217053-B21
	NOTE: This drive is supported in the CD-ROM bay and in the removable media bay. CD-RW/DVD ROM Combo Drive Option Kit	331346-B21
	NOTE: This drive is supported in the CD-ROM bay and in the removable media bay. HP DVD+R/RW 16X Half Height	383974-B21
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Internal Storage	ML5xx Two Bay Hot Plug SCSI Drive Cage NOTE: The drive cage option kit (PN 244058-B21) has one 1" drive bay and one 1.6" drive bay.	244058-B21
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Hard Drives	Ultra320 SCSI – Universal Hot Plug	
	300-GB 10,000 rpm U320 Universal Hard Drive (1")	350964-B22
	146.8-GB 10,000 rpm U320 Universal Hard Drive (1")	286716-B22
	72.8-GB 10,000 rpm U320 Universal Hard Drive (1")	286714-B22
	146.8-GB 15,000 rpm U320 SCSI Hard Drive (1")	347708-B22
	72.8-GB 15,000 rpm U320 Universal Hard Drive (1")	286778-B22
	36.4-GB 15,000 rpm U320 Universal Hard Drive (1")	286776-B22
	NOTE: All U320 Universal Hard Drives are backward compatible to U2 or U3 speeds. U320 drives require an optional U320 Smart Array Controller or U320 SCSI HBA to support U320 transfer rates.	
NOTE: Please see the Hard Drive QuickSpecs for Technical Specifications such as capacity, height, width, interface, transfer rate, seek time, physical configuration, and operating temperature: U320 Hard Drive QS: http://h18000.www1.hp.com/products/quickspecs/11531_div/11531_div.HTML (Worldwide) http://h18000.www1.hp.com/products/quickspecs/11531_na/11531_na.HTML (North America)		
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Options

Storage Controllers	Smart Array 6402/128 Controller	273915-B21
	Smart Array 6404/256 Controller	273914-B21
	512MB DDR BBWC Upgrade	372538-B21
	Smart Array 641 Controller	291966-B21
	Smart Array 642 Controller	291967-B21
	256-MB Battery-Back Cache Module	254786-B21
	NOTE: This 256-MB Battery-Backed Cache Module supports the Smart Array 5300 series controllers, HP StorageWorks Modular Smart Array 1000 and the HP StorageWorks Modular Smart Array 500.	
	128MB Battery-Backed Cache Enabler	351580-B21
	NOTE: This 128MB BBWC supports the Smart Array 641 Controller and Smart Array 642 Controller.	
	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter	268351-B21
	64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS	284688-B21
	Ultra320 Expansion Module for SA-6402	273911-B21
	NOTE: Please see the following Controller or SCSI Adapter QuickSpecs for Technical Specifications such as PCI Bus, PCI Peak Data Transfer Rate, SCSI Protocols supported, SCSI Peak Data Transfer Rate, Channels, SCSI Ports, Drives supported, Cache, RAID support, and additional information:	
	http://h18000.www1.hp.com/products/quickspecs/11587_div/11587_div.HTML (Smart Array 6400 Series)	
http://h18000.www1.hp.com/products/quickspecs/12067_div/12067_div.HTML (Smart Array 641)		
http://h18000.www1.hp.com/products/quickspecs/12069_div/12069_div.HTML (Smart Array 642)		
http://h18000.www1.hp.com/products/quickspecs/10429_div/10429_div.HTML (SCSI Adapter)		
http://h18000.www1.hp.com/products/quickspecs/11555_div/11555_div.HTML (U320 Adapter)		

Communications	HP NC310F PCI-X 1000SX Gigabit Server Adapter	368169-B21
	HP NC320T PCI Express 1000T Gigabit Server Adapter	367047-B21
	HP NC1020 PCI 1000T Gigabit Server Adapter	353377-B21
	HP NC7170 PCI-X Dual Port 1000T Gigabit Server Adapter	313881-B21
	HP NC7771 PCI-X 1000T Gigabit Server Adapter	290563-B21
	NOTE: Any network adapter (NIC), except the NC1020, on the option list can be used for redundancy with the embedded NC7782 NIC. When teaming with other NICs or with the embedded NIC, the lack of Jumbo Frames and LSO features on the NC1020 will cause high end NICs to have those features disabled. (e.g. incompatibility issues with the other option NICs for that platform).	

Options

Redundant Options	Hot-plug Redundant Fan Kit	128284-B21
	NOTE: Included in Rack Optimized models.	
	Hot Plug Redundant Power Supply	236845-001
	NOTE: Included in Rack Optimized models.	
	Hot Plug Redundant Power Supply (Australia)	236845-011
	NOTE: Included in Rack Optimized models	
	Hot Plug Redundant Power Supply (Int'l)	236845-021
NOTE: Included in Rack Optimized models		
Hot Plug Redundant Power Supply (UK)	236845-031	
NOTE: Included in Rack Optimized models		
Hot Plug Redundant Power Supply (Japan)	236845-291	
NOTE: Included in Rack Optimized models		

Management Options	Remote Insight Lights-Out Edition II (NA, LA)	227251-001
	Remote Insight Lights-Out Edition II (EMEA)	227251-021
	Remote Insight Lights-Out Edition II (APD, Japan)	227251-371

Tape Drives

NOTE: For the complete listing of Tape Drive offerings for this server, please visit: <http://www.hp.com/products1/storage/compatibility/tapebackup/ISS/index.html>

For recommended tape drive offerings for this ProLiant server see the following:

Hot Plug Tape Drives

HP StorageWorks DAT 72 SCSI Hot-plug Tape Drive (Carbon) Q1529A

USB Tape Drives

HP StorageWorks DAT 72 USB Internal Tape Drive (Carbonite) DW026A

HP StorageWorks DAT 72 USB External Tape Drive (Carbonite) DW027A

Internal, External, and Rack-Mount Tape Drives

HP StorageWorks Ultrium 232 Internal Tape Drive (Carbonite) DW064A

HP StorageWorks Ultrium 232 External Tape Drive (Carbonite) DW065B

HP StorageWorks Ultrium 448 Internal Tape Drive (Carbonite) DW016A

HP StorageWorks 1U Rack-mount kit with one Ultrium 448 (Carbonite) DW028A

HP StorageWorks Ultrium 960 Internal Tape Drive (Carbonite) Q1538A

HP StorageWorks 3U Rack-mount kit with one Ultrium 960 (Carbonite) Q1595A

NOTE: Please see the HP StorageWorks Ultrium Tape Drive QuickSpecs for additional options such as controllers, media, and other related items:

http://h18006.www1.hp.com/products/quickspecs/11739_div/11739_div.html
(Worldwide)

http://h18006.www1.hp.com/products/quickspecs/11739_na/11739_na.html
(North America)

For an up-to-date listing of the latest O/S and software support details for HP Ultrium tape drives, please visit: <http://www.hp.com/go/connect>.

Rack-Mount Tape Drive Enclosures

HP StorageWorks 1U Rack-Mount Kit A7445B

NOTE: The 1U Rack-mount Kit can support up to (2) half-height tape drives and compatible with multiple Single-Ended and LVD SCSI tape drives including the DAT 24, DAT 40, DAT 72, DLT VS80, DLT VS160, Ultrium 215, Ultrium 232 and Ultrium 448 tape drives.

Options

HP StorageWorks 1U USB Rack-Mount Kit	A8007A
1U USB Cable Option Kit	396114-B21
NOTE: Converts a 1U SCSI rack-mount kit to a USB interface to support the USB tape drives.	
HP StorageWorks 3U Rack-Mount Kit	274338-B23
NOTE: The 3U Rack-mount Kit can support up to (2) full-height or (4) half-height tape drives and compatible with multiple Single-Ended and LVD SCSI tape drives including DAT 24, DAT 40, DAT 72, DLT VS80, DLT VS160, SDLT 320, SDLT 600, Ultrium 215, Ultrium 230, Ultrium 232, Ultrium 460, Ultrium 448 and Ultrium 960 tape drives.	
NOTE: Please see the Rack-Mount Tape Drive Kits QuickSpecs for additional information regarding these kits:	
http://h18000.www1.hp.com/products/quickspecs/10854_div/10854_div.HTML (Worldwide)	
http://h18000.www1.hp.com/products/quickspecs/10854_na/10854_na.HTML (North America)	

Tape Autoloaders

DAT Autoloader

HP StorageWorks DAT 72x6 Autoloader (Internal)	Q1566A
HP StorageWorks DAT 72x6 Autoloader (External)	Q1567A

NOTE: Please see the DAT Tape Autoloader QuickSpecs for additional options such as host bus adapters, controllers and media:

http://h18000.www1.hp.com/products/quickspecs/11985_div/11985_div.HTML
(Worldwide)

http://h18000.www1.hp.com/products/quickspecs/11985_na/11985_na.HTML
(North America)

HP StorageWorks Tape 1/8 Autoloader

HP StorageWorks 1/8 Ultrium 960 Tape Autoloader	AF204A
HP StorageWorks 1/8 Ultrium 448 Tape Autoloader	AF203A
HP StorageWorks 1/8 SDLT 320 Tape Autoloader	AA926A
HP StorageWorks 1/8 Ultrium 232 Tape Autoloader	AF202A
1/8 Tape Autoloader Rackmount Kit	C9268R

NOTE: Required to install the unit in a standard 19-inch rack; includes rails and rackmount instructions

NOTE: Please reference the 1/8 Tape Autoloader QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>

HP StorageWorks SSL1016 Tape Autoloader

HP StorageWorks SSL1016 Ultrium 460 Tape Autoloader	330821-B21
HP StorageWorks SSL1016 SDLT 320 Tape Autoloader	330816-B21

NOTE: Please reference the SSL1016 Tape Autoloader QuickSpecs at <http://www.hp.com/go/automation> for additional information needed to create a complete solution; reference current compatibility information at <http://www.hp.com/go/ebs>

Options

Tape Libraries

HP StorageWorks MSL2024 Tape Library		
HP StorageWorks MSL2024 1 Ultrium 960 Drive Library		AG115A
HP StorageWorks MSL2024 1 Ultrium 448 Drive Library		AG116A
HP StorageWorks MSL2024 2 Ultrium 448 Drive Library		AG117A
HP StorageWorks MSL6000 Tape Library		
Ultrium 960 technology		
HP StorageWorks MSL6030 1 Ultrium 960 Dr LVDS Library		AD606A
HP StorageWorks MSL6030 1 Ultrium 960 Dr FC Library		AD608A
HP StorageWorks MSL6030 2 Ultrium 960 Dr LVDS Library		AD607A
HP StorageWorks MSL6030 2 Ultrium 960 Dr FC Library		AD609A
Ultrium 460 technology		
HP StorageWorks MSL6030 1 Ultrium 460 Dr LVDS Library		AD598A
HP StorageWorks MSL6030 1 Ultrium 460 Dr FC Library		AD600A
HP StorageWorks MSL6030 2 Ultrium 460 Dr LVDS Library		AD599A
HP StorageWorks MSL6030 2 Ultrium 460 Dr FC Library		AD601A
<p>NOTE: Please reference the MSL2024 and MSL6000 Tape Library QuickSpecs at http://www.hp.com/go/automation for additional information needed to create a complete solution; reference current compatibility information at http://www.hp.com/go/ebs.</p>		

Magneto-Optical Jukeboxes

HP StorageWorks 9.1 GB Optical Jukeboxes		
600mx, 4 drive, 64 slot jukebox		C1160M
1200mx, 4 drive, up to 128 slots		C1104M
2200mx, 6 drive, up to 238 slots		C1107M
<p>NOTE: Please see the HP StorageWorks Magneto-Optical Products data sheet for a complete listing of available jukeboxes at: http://www.hp.com/products1/storage/products/archivalprod/brochures/MO_family_pb.pdf</p> <p>NOTE: Please reference the Magneto-Optical Jukebox data sheets at http://www.hp.com/go/optical for additional information needed to create a complete solution.</p>		

Ultra Density Optical Jukeboxes

1900ux, 4 drive, 64 slot jukebox		AA966A
3800ux, 4 drive, 128 slot jukebox		AA969A
7100ux, 6 drive, 238 slot jukebox		AA971A
<p>NOTE: Please see the HP StorageWorks Ultra Density Optical Jukeboxes QuickSpecs for a complete listing of available jukeboxes at: http://h18006.www1.hp.com/products/quickspecs/11944_div/11944_div.html</p> <p>NOTE: Please reference the Ultra Density Optical Jukebox QuickSpecs at http://www.hp.com/go/optical for additional information needed to create a complete solution</p>		

Options

Cluster Options	<p>ProLiant Cluster Starter Kit 364023-B21</p> <p>NOTE: For additional information regarding the ProLiant Cluster Starter Kit please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11935_na/11935_na.html (North America) http://h18000.www1.hp.com/products/quickspecs/11935_div/11935_div.html (Worldwide)</p> <p>ProLiant Cluster Kit with OpenView Storage Mirroring 364025-B21</p> <p>NOTE: For additional information regarding the ProLiant Cluster Kit with OpenView Storage Mirroring please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11934_na/11934_na.html (North America) http://h18000.www1.hp.com/products/quickspecs/11934_div/11934_div.html (Worldwide)</p> <p>HP HA/F200 for Entry SAN Cluster 364026-B22</p> <p>HP HA/F200 for Entry SAN Cluster (Japan) 364026-292</p> <p>NOTE: For additional information regarding the ProLiant Cluster for Entry Level SAN please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11932_na/11932_na.html (North America) http://h18000.www1.hp.com/products/quickspecs/11932_div/11932_div.html (Worldwide)</p> <p>ProLiant Cluster HA/F500 for the Enterprise SAN 364024-B21</p> <p>NOTE: For additional information regarding the ProLiant Cluster HA/F500 for Enterprise SAN please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11933_na/11933_na.html (North America) http://h18000.www1.hp.com/products/quickspecs/11933_div/11933_div.html (Worldwide)</p>
HP StorageWorks Modular Smart Array 20	<p>HP StorageWorks Modular Smart Array 20 335921-B21</p> <p>NOTE: Rack-mountable 12 (SATA) drive enclosure with U320 Host connectivity, redundant power supplies.</p> <p>HP StorageWorks Modular Smart Array 20 Starter Kit 366172-B21</p> <p>NOTE: Rack-mountable 12 (SATA) drive enclosure with U320 Host connectivity, redundant power supplies. Includes Smart Array 6402/128 Controller.</p> <p>NOTE: The Modular Smart Array Enclosure 20 Family supports the SATA 1.5Gb/s 1" Hot Plug Hard Drives.</p>
HP StorageWorks Modular Smart Array 30	<p>HP StorageWorks Modular Smart Array 30 SB 302969-B21</p> <p>NOTE: Rack-mountable 14 drive enclosure with single bus, redundant power supplies</p> <p>HP StorageWorks Modular Smart Array 30 DB 302970-B21</p> <p>NOTE: Rack-mountable 14 drive enclosure with dual bus, redundant power supplies</p> <p>NOTE: The Modular Smart Array Enclosure 30 Family supports the Wide Ultra3, Ultra320 1" Hot Plug Hard Drives.</p>

Options

HP StorageWorks Modular Smart Array 1000	HP StorageWorks Modular Smart Array 1000 NOTE: Please see the Modular Smart Array 1000 QuickSpecs for additional options and configuration information at http://h18000.www1.hp.com/products/quickspecs/11033_na/11033_na.HTML (North America) http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML (Worldwide)	201723-B22
HP StorageWorks Modular Smart Array 1500 cs	Modular Smart Array 1500 Controller Shelf NOTE: Please see the StorageWorks Modular SAN Array 1500 cs QuickSpecs for additional options and configuration information at: http://www.hp.com/go/MSA1500cs	AA986A
StorageWorks Options	StorageWorks SAN Switch 2/16 StorageWorks SAN Switch 2/8-EL Upgrade Kit	322118-B21 325888-B21
HP Uninterruptible Power Systems - Tower	HP UPS Model T1000 XR (1000VA, 700 Watt), Low Voltage (NA) HP UPS Model T1000 XR (1000VA, 700 Watt), High Voltage (Int'l) HP UPS Model T1000 XR (1000VA, 700 Watt), Low Voltage (Japan) HP UPS Model T1500 XR (1440VA, 1050 Watt), Low Voltage (NA) HP UPS Model T1500 XR (1500VA, 1050 Watt), High Voltage (Int'l) HP UPS Model T1500 XR (1500VA, 1050 Watt), Low Voltage (Japan) HP UPS Model T2200 XR (1920VA, 1600 Watt), Low Voltage (NA) HP UPS Model T2200 XR (2080VA, 1600 Watt), High Voltage (NA) HP UPS Model T2200 XR (2200VA, 1600 Watt), Low Voltage (WW) HP UPS Model T2200 XR (2200VA, 1600 Watt), Low Voltage (Japan)	204155-001 204155-B31 312803-291 204155-002 204155-B32 204155-291 204451-001 204451-002 204451-B31 204451-291
Uninterruptible Power Systems – Rack	HP UPS R1500 XR (1440VA, 1340 Watt), Low Voltage (NA) HP UPS R1500 XR (1500VA, 1340 Watt), High Voltage (Int'l) HP UPS R1500 XR (1500VA, 1340 Watt), Low Voltage (Japan) HP UPS R3000 XR (2880VA, 2700 Watt), Low Voltage (NA) HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (NA) HP UPS R3000 XR (2400VA, 2250 Watt), Low Voltage (Japan) HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (Japan) HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (Int'l - detachable cord) HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (16A IEC309 Plug) HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (16A CEE 7/7 SCHUKO Plug) HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (16A BS-546 Plug) HP UPS R5500 XR, (5000VA, 4500 Watt), High Voltage (NA/Jpn) HP UPS R5500 XR, (6000VA, 5400 Watt), High Voltage (Int'l) HP UPS R12000 XR, N+x (12KVA, 12KW) High Voltage (WW)	204404-001 204404-B31 204404-291 192186-001 192186-002 192186-291 192186-292 192186-B31 192186-B32 192186-B33 192186-AR1 326529-D71 326529-B31 207552-B22

Options

NOTE: UPS R6000 has a hardwired input; and the UPS R12000 XR has a hardwired input and output connection.

HP Monitored Power Distribution Unit (PDU)	HP Monitored Power Distribution Unit: Full Rack Version		
	HP PDU with Power Monitoring, Model S2324 - dual input, 3-phase, 24A (NA/JPN)	370959-D71	
	HHP Power Distribution Unit with Power Monitoring Model S1324 - single input, 3 phase, 24A (NA/JPN)	370960-D71	
	HP Power Distribution Unit with Power Monitoring Model S2140 - dual input, 1 phase, 40A (NA/JPN)	370961-D71	
	HP Power Distribution Unit with Power Monitoring Model S1140 - single input, 1 phase, 40A (NA/JPN)	370962-D71	
	HP Power Distribution Unit with Power Monitoring Model S2316 - dual input, 3 phase, 16A (INTL)	370963-B31	
	HP Power Distribution Unit with Power Monitoring Model S1316 - single input, 3 phase, 16A (INTL)	370964-B31	
	HP Power Distribution Unit with Power Monitoring Model S2132 - dual input, 1 phase, 32A (INTL)	370965-B31	
	HP Power Distribution Unit with Power Monitoring Model S1132 - single input, 1 phase, 32A (INTL)	370966-B31	
	HP Monitored Power Distribution Unit: Half Rack Version		
	HP PDU with Power Monitoring, Model S1348 - single input, 3-phase, 60A (NA/JPN)	AF916A	
	HP PDU with Power Monitoring, Model S1332 - single input, 3-phase, 32A (INTL)	AF917A	
	Modular PDUs 1U/0U (Up to 32 outlets) NOTE: 1U/0U mounting brackets shipped with the unit (optimized for 10000 and 9000 series racks).	HP Modular Power Distribution Units (mPDU), Low Volt Model, 24A (100-127 VAC) (NA, Japan)	252663-D71
		NOTE: This mPDU (252663-D71) may also be used to connect the low volt model of the UPS R3000 XR.	
HP Modular Power Distribution Units (mPDU), High Volt Model, 24A (200-240 VAC) (NA, Japan)		252663-D72	
HP Modular Power Distribution Units (mPDU), High Volt Model, 32A (200-240 VAC) (Int'l)		252663-B31	
HP Modular Power Distribution Units (mPDU), High Volt Model, 40A (200-240 VAC) (WW)		252663-B21	
NOTE: This mPDU (252663-B21), 40A model has a hardwired input.			
HP Modular Power Distribution Units (mPDU), High Volt Model, 16A (200-240 VAC) (WW)		252663-B24	
NOTE: This PDU has a detachable input power cord and allows for adaptability to country specific power requirements. This model may also be used with the high volt UPSs R3000 XR and R6000 For North America, need to order cable PN 340653-001.			
HP Modular Power Distribution Unit (mPDU), High Volt Model, 40A, Attached Cord, (NA/JPN)	252663-D73		
HP Modular Power Distribution Unit (mPDU), High Volt Model, 40A, Attached Cord, (Int'l)	252663-B32		

Options

NOTE: Please see the following Modular Power Distribution Unit (Zero-U/1U Modular PDUs) QuickSpecs for additional options including shorter jumper cables and country specific power cords:

http://h18000.www1.hp.com/products/quickspecs/11041_na/11041_na.HTML
(North America)

http://h18000.www1.hp.com/products/quickspecs/11041_div/11041_div.HTML
(Worldwide)

USB Options	USB 2-Button Optical Scroll Mouse (Carbonite/Silver)	DC172B
	USB 1.44-MB External Diskette Drive (Carbonite)	DC141B
	256 MB HP Drive Key II (USB 2.0)	PH657A
Rack Conversion Kit	ProLiant Tower to Rack Conversion Kit NOTE: This Tower to Rack Conversion Kit (PN 253699-B21) supports the HP ProLiant ML570 G2 and HP ProLiant ML530 G2 servers.	253699-B21
	ProLiant Rack to Tower Conversion Kit NOTE: This Rack to Tower Conversion Kit (PN 271258-B21) supports the HP ProLiant ML570 G2 and HP ProLiant ML530 G2 servers.	271258-B21
Rack Options for Third Party Rack	3rd Party Rack Kit (ALL) NOTE: The ML570 G2 Third Party rack kit provides support for any rack, 274739-B21 square hole or round hole, (including HP Rack System /E and HP Systems), with an adjustment range from 23 1/2" - 34" deep. NOTE: The Third party rack kit is required for round hole racks or for square hole racks that do not conform to the adjustment range of the standard rail that ships with the server. NOTE: Telco Rack Support for all 2-post Telco racks requires the Third Party Rack 274739-B21 option kit plus an additional option kit from Rack Solutions. The Rack Solutions brackets can be purchased at: http://www.racksolutions.com/hp/index.html .	274739-B21
	Rack Adapter Kit NOTE: This kit allows HP rack servers to fit in racks that are 24" wide.	332815-B21

Options

HP Rack 5000 Series (Graphite Metallic)	HP 5642 Rack-Unassembled	358254-B21
Rack Options for Rack 5000 Series	Stabilizer Kit for 5642 rack (Graphite Carbon) NOTE: The stabilizing kit is used to prevent rack from tipping over.	374493-B21
	Baying Kit for 5642 rack (Graphite Carbon) NOTE: The baying kit is used to join two or more HP 5642 racks.	374499-B21
HP Rack 10000 Series (Graphite Metallic)	10642 (42U) Infrastructure Rack (Low Voltage)	379006-001
	10642 (42U) Infrastructure Rack (High Voltage)	379005-001
	HP Rack S10614 (14U) Rack Cabinet – Shock Pallet	292302-B22
	HP Rack 10842 (42U, 800mm wide) – Pallet	257415-B21
	HP Rack 10842 (42U, 800mm wide) – Shock Pallet	257415-B22
	HP Rack 10647 (47U) – Pallet	245160-B21
	HP Rack 10647 (47U) – Crated	245160-B23
	HP Rack 10642 (42U) – Pallet	245161-B21
	HP Rack 10642 (42U) – Shock Pallet	245161-B22
	HP Rack 10642 (42U) – Crated	245161-B23
	HP Rack 10636 (36U) – Pallet	245162-B21
	HP Rack 10636 (36U) – Shock Pallet	245162-B22
	HP Rack 10636 (36U) – Crated	245162-B23
	HP Rack 10622 (22U) – Pallet	245163-B21
	HP Rack 10622 (22U) – Shock Pallet	245163-B22
	HP Rack 10622 (22U) – Crated	245163-B23
<p>NOTE: -B21 (pallet) used to ship empty racks shipped on a truck -B22 (shock pallet) used to ship racks with equipment installed (by custom systems, VARs and Channels) -B23 (crated) used for air shipments of empty racks</p> <p>NOTE: It is mandatory to use a shock pallet in order to ship racks with equipment installed. Not all HP equipment is qualified to be shipped in the Rack 10000 series</p> <p>NOTE: Please see the Rack 10000 QuickSpecs for Technical Specifications such as height, width, depth, weight, and color: http://h18000.www1.hp.com/products/quickspecs/10995_div/10995_div.HTML (Worldwide) http://h18000.www1.hp.com/products/quickspecs/10995_na/10995_na.HTML (North America)</p> <p>NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html.</p>		

Options

Rack Options for Rack 10000 Series	HP Rack Light Kit (Neon)	361589-B21	
	HP Rack Plinth Kit (Carbon)	251960-B21	
	42U Side Panel - Graphite Metallic	246099-B21	
	36U Side Panel - Graphite Metallic	246102-B21	
	47U Side Panel - Graphite Metallic	255486-B21	
	TFT7210R Rack Mounted 17" Monitor	348373-B21	
	NOTE: For a complete list of Monitors please view the following URL: http://h18004.www1.hp.com/products/monitors/ .		
	TFT5600 Rack Keyboard Monitor	221546-xx1	
	NOTE: For a complete list of Monitors please view the following URL: http://h18004.www1.hp.com/products/monitors/ .		
	1U Rack Keyboard & Drawer (Carbon)	257054-xx1	
Country Code Key (for TFT5600 Rack Keyboard Monitor (PN 221546-xx1 and for 1U Rack Keyboard & Drawer (PN 257054-xx1)			
XX = 00	US	XX = 09	Norway
XX = 03	UK	XX = 10	Sweden/Finland
XX = 04	Germany	XX = 11	Switzerland
XX = 05	France	XX = 13	Portugal
XX = 06	Italy	XX = 18	Belgium
XX = 07	Spain	XX = 29	Japan
XX = 08	Denmark	XX = B3	International
NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html .			

HP KVM Switch Options	IP Console Switch Box (KVM/IP), 3 x 1 x 16	262586-B21
	IP Console Switch Box (KVM/IP), 1 x 1 x 16	262585-B21
	Server Console Switch (KVM), 0 x 1 x 8 port	336044-B21
	Server Console Switch (KVM), 0 x 2 x 16 port	336045-B21
	PS/2 Interface Adapter, 1 pack	262588-B21
	PS/2 Interface Adapter, 8 pack	262587-B21
	USB Interface Adapter, 1 pack	336047-B21
	Serial Interface adapter - 1 Pack with power supply	373035-B21
	NOTE: Cat5e cables are required to connect Interface Adapters to Console Switches. Cat5e cables can be found at the following URL: http://www.hp.com/go/kvm .	
	HP 1x 4 USB/PS2 KVM Switch, TT (NA/JPN)	371301-D71
	HP 1x 4 USB/PS2 KVM Switch, TT (AU/NZ)	371301-011
	HP 1x 4 USB/PS2 KVM Switch, TT (UK)	371301-031
	HP 1x 4 USB/PS2 KVM Switch, TT (EU)	371301-A21
	HP 1x 4 USB/PS2 KVM Switch, RM (ALL)	371302-B21
	HP PS2 KVM Cable with audio, 6', 2-pack	371730-B21
HP USB KVM Cable with audio, 6', 2-pack	371729-B21	

Options

NOTE: For additional information regarding KVM switches, Serial Console servers, rack mount monitors, keyboards and all related options please see the following URL: <http://www.hp.com/go/kvm>.

HP Serial Console Server Options	HP 16 Port Serial Console Server (worldwide)	AF101A
	HP 48 Port Serial Console Server (worldwide)	AF102A
	Serial Adapter, RJ45-DB9 DCE Female, 1 Pack	AF103A
	Serial Adapter, RJ45-DB9 DCE Female, 8 Pack	AF110A

NOTE: Cat5e cables are required to connect Serial Adapters to Serial Console Servers. Additional Serial Adapters and Cat5e cables can be found at the following URL: <http://www.hp.com/go/kvm>.

NOTE: For additional information regarding KVM switches, Serial Console servers, rack mount monitors, keyboards and all related options please see the following URL: <http://www.hp.com/go/kvm>.

Service and Support Offerings (HP Care Pack Services)	Hardware Services On-site Service	
	4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years, Electronic	U4591E
	4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4592E
	6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4593E
	Installation & Start-up Services	
	Hardware Installation, Electronic	U4601E
	Installation & Start-Up of a ProLiant server and Microsoft or Linux O/S per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excl. HP holidays, Electronic	U4602E
	Support Plus	
	Onsite HW support, 8am-9pm, M-F, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays.	U4603E
	Onsite HW support, 8am-9pm, M-F, 4hr response and Linux O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays, Electronic	U4605E
	Support Plus 24	
	Onsite HW support 24x7, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U4604E
	Onsite HW support 24x7, 4hr response and Linux O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U4606E
NOTE: For more information, customer/resellers can contact http://www.hp.com/services/carepack .		

Memory

HP ProLiant ML570 G2 - 3.0 GHz, 2.7 GHz, 2.2 GHz and 2P Models

Standard Memory

1024 MB PC1600-MHz Registered ECC SDRAM DIMM installed (2 x 512 MB SDRAM DIMM)

Standard Memory Plus Optional Memory

Up to 29,696 MB of memory is available with the optional installation of PC1600-MHz Registered ECC SDRAM DIMM memory kits.

Standard Memory Replaced with Optional Memory

Up to 32,768 MB of memory is available with the removal of the standard 1024 MB of memory and the optional installation of PC1600-MHz Registered ECC SDRAM DIMM memory kits

NOTE: This chart does not represent all possible memory configurations.

NOTE: Second memory board would be required to configure up to 32GB or maximum memory using 2GB DIMMs.

Memory		Slot							
		1	2	3	4	5	6	7	8
Standard	1024 MB	512 MB	512 MB	Empty	Empty	Empty	Empty	Empty	Empty
Optional	29,696 MB	512 MB	512 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
Maximum	32,768 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
Memory		Slot							
		9	10	11	12	13	14	15	16
Standard	1024 MB	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty
Optional	29,696 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
Maximum	32,768 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB

Following are memory options available from HP:

- 4096 MB PC1600-MHz Registered ECC SDRAM Memory Option Kit (2 x 2048 MB) 187421-B21
- 2048 MB PC1600-MHz Registered ECC SDRAM Memory Option Kit (2 x 1024 MB) 187420-B21
- 1024 MB PC1600-MHz Registered ECC SDRAM Memory Option Kit (2 x 512 MB) 187419-B21
- 512 MB PC1600-MHz Registered ECC SDRAM Memory Option Kit (2 x 256 MB) 187418-B21

HP ProLiant ML570 G2 1P all other Models

Standard Memory

512 MB PC1600-MHz Registered ECC SDRAM DIMM installed (2 x 256 MB SDRAM DIMM)

Standard Memory Plus Optional Memory

Up to 29,184 MB of memory is available with the optional installation of PC1600-MHz Registered ECC SDRAM DIMM memory kits.

Standard Memory Replaced with Optional Memory

Up to 32,768 MB of memory is available with the removal of the standard 512 MB of memory and the optional installation of PC1600-MHz Registered ECC SDRAM DIMM memory kits

NOTE: This chart does not represent all possible memory configurations.

NOTE: Second memory board would be required to configure up to 32GB or maximum memory using 2GB DIMMs.

Memory

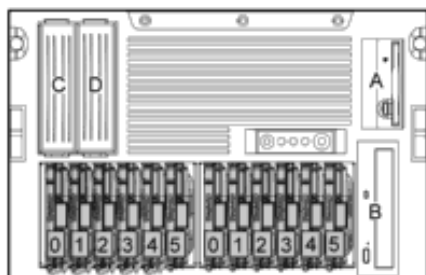
Memory		Slot							
		1	2	3	4	5	6	7	8
Standard	512 MB	256 MB	256 MB	Empty	Empty	Empty	Empty	Empty	Empty
Optional	29,184 MB	256 MB	256 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
Maximum	32,768 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
Memory		Slot							
		9	10	11	12	13	14	15	16
Standard	512 MB	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty
Optional	29,184 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB
Maximum	32,768 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB

Following are memory options available from HP:

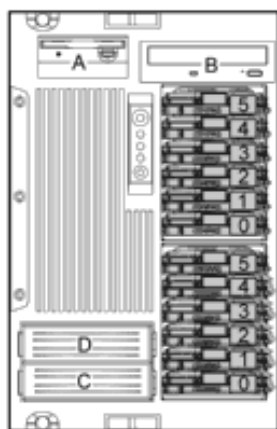
- 4096 MB PC1600-MHz Registered ECC SDRAM Memory Option Kit (2 x 2048 MB) 187421-B21
- 2048 MB PC1600-MHz Registered ECC SDRAM Memory Option Kit (2 x 1024 MB) 187420-B21
- 1024 MB PC1600-MHz Registered ECC SDRAM Memory Option Kit (2 x 512 MB) 187419-B21
- 512 MB PC1600-MHz Registered ECC SDRAM Memory Option Kit (2 x 256 MB) 187418-B21

Storage

1-inch Drive Locations



- 2X 0 - 5 Two 6 x1 inch Wide Ultra3 SCSI Hard Drive Cages
- A 1.44-MB Diskette Drive
- B 48x IDE CD-ROM
- C, D Two available half height bays for tape backup storage



1-inch Drive Locations

- 2X 0 - 5 Two 6 x1 inch Wide Ultra3 SCSI Hard Drive Cages
- A 1.44-MB Diskette Drive
- B 48x IDE CD-ROM
- C, D Two available half height bays for tape backup storage

Drive Support

	Quantity Supported	Position Supported	Controller
Removable Media			
1.44-MB Diskette Drive	Up to 1	A	Integrated
IDE CD-ROM Drive	Up to 1	B	Integrated IDE
DVD-ROM Drive	Up to 1	B, C, D	Integrated IDE
ML5xx Two Bay Hot Plug SCSI Drive Cage	Up to 1	C, D	Integrated SCSI

Storage

Hard Drives

Ultra320 Hot Pluggable Drives

	Quantity Supported	Position Supported	Controller
1-inch	Up to 12	2X 0-5 for each drive cage	Integrated Dual Channel Wide Ultra3 SCSI Adapter
300-GB 10,000 rpm	Up to 14 (With Optional ML5xx Two Bay Hot Plug SCSI Drive Cage)		Smart Array 6402/128 Controller
146.8-GB 10,000 rpm			Smart Array 6404/256 Controller
72.8-GB 10,000 rpm			Smart Array 641 Controller
146.8-GB 15,000 rpm			Smart Array 642 Controller
72.8-GB 15,000 rpm			64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter
36.4-GB 15,000 rpm			

NOTE: All U320 Universal Hard Drives are backward compatible to U2 or U3 speeds. U320 drives require an optional U320 Smart Array Controller or U320 SCSI HBA to support U320 transfer rates.

External Storage

	Quantity Supported	Position Supported	Host Controller or Adapter
Modular Smart Array 30 Family	Up to 28	External	Smart Array 6402/128 Controller Smart Array 6404/256 Controller Smart Array 642 Controller 64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
Modular Smart Array 1000	Please see the Modular Smart Array 1000 QuickSpecs below to determine configuration requirements	External	Please see the Modular Smart Array 1000 QuickSpecs (URL below) for the latest list of supported HBAs
Modular Smart Array 1500 cs	Please see the Modular Smart Array 1500 cs QuickSpecs below to determine configuration requirements	External	Please see the Modular Smart Array 1500 cs QuickSpecs (URL below) for the latest list of supported HBAs

Modular Smart Array 1000: http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML (Worldwide)
http://h18000.www1.hp.com/products/quickspecs/11033_na/11033_na.HTML (North America)

Modular Smart Array 1500 cs: <http://www.hp.com/go/MSA1500cs>

Storage

Maximum Storage Capacity – (Ultra3 Drive Cage, ML5xx Two Bay Hot Plug SCSI Drive Cage, 4 channel controller in all 7 slots & MSA30 enclosures)

Internal	4.20 TB ((12 x 300 GB) + (2 x 300 GB) Ultra320 SCSI 1" Drives)
External	117.60 TB hot plug SCSI storage (28 x (14 x 300 GB 1" Ultra320 SCSI Drives))
Total	121.80 TB

Tape Drives, Tape Autoloaders, & Tape Libraries

NOTE: For an up-to-date listing of the latest O/S Support details for each of the Tape Drives listed below, please see the following:
http://h18000.www1.hp.com/products/quickspecs/North_America/10233.html (North America)
<http://h18000.www1.hp.com/products/quickspecs/Division/10233.html> (Worldwide)

NOTE: For an up-to-date listing of the latest O/S Support details for each of the Tape Autoloaders and Tape Libraries listed below, please see the following:
http://h18000.www1.hp.com/products/quickspecs/North_America/10809.html (North America)
<http://h18000.www1.hp.com/products/quickspecs/Division/10809.html> (Worldwide)

NOTE: For complete listing of tape drive offerings see
<http://www.hp.com/products1/storage/compatibility/tapebackup/ISS/index.html>

For details on connecting tape drives to this server, see the following:

	Quantity Supported	Position Supported	Controller
HP StorageWorks Tape Drives, Hot Plug	1	0-5	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2
DAT 24			64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
DAT 40			
DAT 72			
HP StorageWorks Tape Drives, USB External	1 per USB port	External	USB port
DAT 40 USB			
DAT 72 USB			
HP StorageWorks Tape Drives, Internal	1	C,D	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
Ultrium 215			
Ultrium 230			
Ultrium 232			
Ultrium 448			
Ultrium 460			
Ultrium 960			
DAT 40			
DAT 72			
DLT VS80			
DLT VS160			
SDLT 320			
SDLT 600			

Storage

HP StorageWorks Tape Drives, External Ultrium 215 Ultrium 230 Ultrium 232 Ultrium 448 Ultrium 460 DAT 40 DAT 72 DLT VS80 DLT VS160 SDLT 320	Up to 2	External	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks Tape Drives, External Ultrium 960 SDLT 600	1 per SCSI Channel	External	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks Autoloaders, Internal DAT 72x6 Tape Autoloader	1	C,D	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks Autoloaders, External DAT 72x6 Tape Autoloader 1/8 Tape Autoloader SSL1016 Tape Autoloader	1 autoloader per SCSI channel	External	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks Rack-mount Tape Drive Enclosures 1U Rack-Mount Kit 3U Rack-Mount Kit 5U Rack-Mount Kit	1 per SCSI channel	External	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS

Storage

HP StorageWorks Tape Libraries, External

MSL2024 (Ultrium 960-based)

MSL2024 (Ultrium 448-based)

MSL6000 (Ultrium 960-based)

MSL6000 (SDLT 600-based)

MSL6000 (Ultrium 460-based)

MSL5026S2 (SDLT 320-based)

MSL5052S2 (SDLT 320-based)

Please reference the MSL Tape Library QuickSpecs to determine configuration requirements

External

Please consult the EBS connectivity matrix at <http://www.hp.com/go/ebs> for detailed connectivity information.

Power Specifications

Part Number	144579-001
Spare Kit	157793-001
Operational Input Voltage Range (V rms)	90 to 264
Frequency Range (Nominal) (Hz)	47 to 63 (50/60)

Nominal Input Voltage (Vrms)	100	115	208	220	230	240
Max Rated Output Wattage Rating	450	450	450	450	450	450
Nominal Input Current (A rms)	7.1	6.0	3.3	3.1	2.9	2.7
Max Rated Input Wattage Rating (Watts)	692	682	672	662	652	656
Max. Rated VA (Volt-Amp)	706	696	686	675	665	656
Efficiency (%)	65	66	67	68	68	70
Power Factor	0.98	0.98	0.98	0.98	0.98	0.98
Leakage Current (mA)	0.31	0.36	0.65	0.69	0.72	0.75
Maximum Inrush Current (A peak)	42	48	87	92	96	100
Maximum Inrush Current duration (mS)	20	20	20	20	20	20

System Specifications

HP ProLiant ML570 Fully Configured

Up to 4 Processors, 16 Memory Slots, 12 Hard Drives, 6 PCI Slots, and 3 Hot Plug Power Supplies

Nominal Input Voltage (Vrms)	100	115	208	220	230	240
Fully Loaded System Input Wattage (W)	1073	1056	1041	1025	1011	996
Fully Loaded System Input Current (A rms)	11.3	9.7	5.1	4.8	4.5	4.2
Fully Loaded System Thermal (BTU-Hr)	3658	3602	3549	3497	3446	3397
Fully Loaded System VA (Volt-Amp)	1129	1112	1062	1046	1031	1016
System Leakage with all power supplies loaded (mA)	.94	1.08	1.95	2.06	2.16	2.25
System Inrush Current with all power supplies loaded (A)	44	50	91	96	101	105
Power cord requirements	Nema 5-15P to IEC320-C13			Option no. See chart below Spare no. See chart below		
	IEC320-C13 to IEC320-C14 NOTE: For interconnect to high Voltage PDU or UPS.			Option no. See chart below Spare no. See chart below		

NOTES:

* - To review typical system power ratings use the Active Answers Power Calculator which is available via the online tool located at URL: <http://h30099.www3.hp.com/configurator/powercalcs.asp>.

To drill down to calculators:

- Click on: "ProLiant Servers"
- Click on the Server of interest. Example: ML570 G2
- Click on: "Power Calculator" link. (You may need to scroll down to see it)

Power Specifications

Country Power Cords (Nema 5-15P to IEC320-C13)	Option Power Cord Part Number/Spare Power Cord Part Number
Euro	157215-021/285810-001
UK	157216-031/121259-001
Danish	157218-081/292657-081
Swiss	157219-111/292657-111
Italian	157217-061/292657-061
South Africa	157220-AR1/N/A
Australia/NZ	227098-011/285811-001
US	227099-002/188493-001 or 188493-002
Argentina	227102-D01/N/A
Country Power Cords (IEC320-C13 to IEC320-C14)	Option Power Cord Part Number/Spare Power Cord Part Number
WW	142257-003/142258-003
Country Power Cords (13A 125V Straight (3.6m or 12ft))	Option Power Cord Part Number/Spare Power Cord Part Number
US	227099-001/187335-001
Country Power Cords (12A 125V Straight (3.6m or 12ft))	Option Power Cord Part Number/Spare Power Cord Part Number
JPN	227100-291/NA
UK	100613-003
US	227099-001

Technical Specifications

System Unit	Dimensions (HxWxD) (with feet/bezel)	20 x 12.8 x 27.8 in (50.8 x 32.5 x 70.6 cm)		
	Rack Dimensions (HxWxD)	12.8 x 17.5 x 25.6 in (32.5 x 44.4 x 65.0 cm)		
	Weight (approximate)	100 lb (45.36 kg)		
	No hard drives installed, one power supply			
	Input Requirements (per power supply)	Range Input Voltage	100 to 127 VAC/200 to 240 VAC	
		Rated Input Frequency	47 to 63 Hz	
		Input Power	690W @ 110 VAC	
		Rated Input Current	7.6A	
	BTU Rating	2,400 BTU/hr		
	SCSI Connectors	Two internal HD68 connectors (supporting Wide Ultra3)		
One external VHDCI connector (supporting Wide Ultra3)				
One SCSI knockout				
Power Supply Output Power (per power supply)	Rated Steady-State Power	600W		
	Maximum Peak Power			
Acoustic Noise	Listed are the declared A-WEIGHTED SOUND POWER (L_{WAd}) and average bystander position A-WEIGHTED SOUND PRESSURE LEVEL (L_{pAm}) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74, 7th edition) and declared in accordance with ISO 9296 (ECMA 109).			
	Steady-State (Maximum configuration): L_{WAd} = 7.2 Bels, Average Bystander L_{pAm} = 54 dBA (Note 1)			

NOTE: The values listed apply to both the tower and 7U rack configurations. Maximum configuration tested included four Xeon MP processors, twelve 15K rpm hard drives, three power supplies, and four inlet fans.

48X Max IDE (ATAPI) CD-ROM Drive	Disk	Applicable Disk	CD-ROM, CD-XA, CD-DA (Mode 1, Mode 2, Form 1 and 2) Photo CD (Single and Multi-session) Mixed Mode (Audio and Data combined) CD-R
		Capacity	540 MB (Mode 1, 12 cm) 650 MB (Mode 2, 12 cm)
	Block Size	Mode 1	2,048 bytes
		Mode 2	2,340 bytes, 2,336 bytes
		CD-DA	2,352 bytes
		CD-XA	2,328 bytes
	Interface	IDE (ATAPI)	
	Access Times (typical)	Random	<100 ms
		Full-Stroke	<150 ms

Technical Specifications

Data Transfer Rate	Sustained	3000 to 7200 KB/s (20X to 48X)
	Burst	150 KBps to 7,200 KBps
Cache Buffer	128 KB	
Start-up Time (typical)	< 7seconds	
Stop Time	< 4seconds	
Laser Parameters	Type	Semiconductor Laser GaAlAs
	Wave Length	780 ± 25 nm
Operating Conditions	Temperature	41° to 113° F (5° to 45° C)
	Humidity	10% to 80%
Dimensions	(HxWxD, maximum)	1.7 x 5.85 x 8.11 in (4.29 x 14.86 x 20.60 cm)
	Weight	2.09 lb (0.95 kg)

NC3163 Fast Ethernet NIC Embedded 10/100 WOL (Wake On LAN)	Network Interface	10Base-T/100Base-TX		
	Compatibility	PCI, v2.1, IEEE 802.3/802.3u compliant		
	Data Transfer Method	32-bit bus-master PCI		
	Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s	
		10Base-T (Full-Duplex)	20 Mb/s	
		100Base-TX (Half-Duplex)	100 Mb/s	
100Base-TX (Full-Duplex)		200 Mb/s		
Connector	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)		
Cable Support	100Base-TX	Category 5 UTP; up to 328 ft (100 m)		

Integrated Dual Channel Wide Ultra3 SCSI Adapter	Drives Supported	Up to 15 SCSI devices per channel	
	Data Transfer Method	64-bit PCI bus-master	
	SCSI Channel Transfer Rate	160 MB/s per channel	
	Maximum Transfer Rate per PCI Bus (peak)	267 MB/s	
	SCSI Termination	Active Termination	
	SCSI Connectors	1 external, 2 internal (68-pin)	

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